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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,863	09/26/2005	Thomas Feichtinger	14219-102US1 P2003,0186US	3402
26161	7590	02/24/2009	EXAMINER	
FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			NGUYEN, TUYEN T	
			ART UNIT	PAPER NUMBER
			2832	
			NOTIFICATION DATE	DELIVERY MODE
			02/24/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

Office Action Summary	Application No. 10/550,863	Applicant(s) FEICHTINGER ET AL.	
	Examiner TUYEN T. NGUYEN	Art Unit 2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 30-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/26/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of group I, claims 1-29 in the reply filed on 11/7/2008 is acknowledged.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant should clarify what is intended by "wherein the ceramic material *comprises a capacitor ceramic comprising one of NPO ceramics and doped BaTiO₃.*"

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-9, 12-13, and 15-29, are rejected under 35 U.S.C. 102(e) as being anticipated by Mosley [US 2002/0071258 A1].

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Mosley discloses an electrical component having multiple layers [figures 1A-4], the electrical component comprising:

- dielectric layers that are stacked to form a main body [113];
- electrodes [103, 104, 105, 106] positioned at intervals between at least some of the dielectric layers;
- at least two bumps [215] configured to act as electrical contact for electrical component, the bumps being on a surface of the main body; and
- contacts [133] in the main body that electrically connect bumps and electrodes, wherein the electrodes comprise first and second electrode stack [figure 1A], each of the first and second electrode stacks contacting one of the bumps.

Regarding claim 2, Mosley discloses a first contact electrically connects electrodes in the first electrode stack to a bump, and a second contact electrically connects electrodes in the second electrode stack to a bump.

Regarding claim 3, Mosley discloses the first and second electrode stacks face each other in the main body, wherein the main body comprises a region between the first and second electrode stacks that does not contain an electrode.

Regarding claim 4, Mosley discloses the electrodes from the first and second electrode stacks overlap.

Regarding claim 7, Mosley discloses a third bump on a surface of the main body; and a third electrode stack in the main body, the third electrode stack comprising at least one electrode, the third electrode stack being electrically connected to the third bump, wherein at least one

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electrode in the third electrode stack overlap an electrode in at least one of the first and second electrode stacks.

Regarding claim 8, Mosley discloses some electrodes in the first and second electrode stack do not overlap.

Regarding claim 9, Mosley discloses the first, second and third electrode stacks each comprises one electrode.

Regarding claim 12, Mosley discloses fourth and fifth bumps on the surface of the main body, fourth and fifth electrode stacks comprising electrodes in the main body, and contacts that contact fourth electrode stack to the fourth bump and that contact the fifth electrode stack to the fifth bump, wherein the electrode in the fourth electrode stack overlap electrode in the second electrode stack and electrodes in the fifth electrode stack.

Regarding claim 13, Mosley discloses additional bumps on the surface of main body and additional electrode stacks in the main body, each of the additional electrode stacks being connected to a corresponding additional bump.

Regarding claims 17-18, ZnO-Bi or ZnO-Pr or NPO ceramics is a known ceramic material.

Regarding claim 19, manganese is a known material usually uses to form ceramic material in capacitor art [for example see US 6620753.]

Regarding claim 21, Mosley discloses at least three additional bumps on the surface of the main body; and at least three additional electrode stacks in the main body, each of the electrode stacks being electrically connected to a corresponding bump, wherein the main body has an area of less than 2.5mm^2 .

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Regarding claims 22-27, Mosley discloses additional bumps, stacks and contacts in the body.

Regarding claim 28, Ag and Cu are known conducting material.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10-11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mosley [US 2002/0071258 A1].

Mosley discloses the instant claimed invention except for the specific size of the overlap areas and its connection.

The specific sizes of the conductor stack would have been an obvious design consideration based on the intended applications/environments uses.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TUYEN T. NGUYEN whose telephone number is (571)272-1996. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ELVIN ENAD can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/TUYEN T NGUYEN/

Primary Examiner, Art Unit 2832